CLAIM AMENDMENTS

1. (Original) A method of preparing a coated optical fiber tor coupling to a face of an optical device, comprising:

(a) placing the coated fiber so that it extends through a stripping station, a cleaning station and a cleaving station,

(b) bringing a stripper at the stripping station into engagement with the fiber,

(c) effecting relative motion between the fiber and the stripping station, the cleaning station and the cleaving station lengthwise of the fiber, whereby the coating is stripped from a medial length segment of the fiber as said medial length segment passes through the stripping station,

(d) activating a cleaning device at the cleaning station and thereby cleaning fragments of coating material from said medial length segment of the fiber as said medial length segment passes through the cleaning station,

(e) deactivating the cleaning device and discontinuing stripping,

(f) positioning the fiber with said medial length segment of fiber at the cleaving station, and

(g) cleaving the fiber within said medial length segment, thereby providing the fiber with a freshly cleaved end region.

2. (Original) A method according to claim 1, wherein the step of activating the cleaning device includes creating an electric arc in the vicinity of the fiber.

3. (Original) A method according to claim 1, comprising inducing a flow of gas at the stripping station, whereby coating material that is stripped from the fiber as the fiber passes through the stripping station is entrained in the flow of gas and removed from the fiber.

4. (Original) A method according to claim 1, further comprising removing the optical fiber so that it no longer extends through the stripping station, the cleaning station and the cleaving station, placing a second coated fiber so that it extends through the stripping station, the cleaning station and the cleaving station, and repeating steps (b)-(g).

5. (Original) A method according to claim 1, comprising removing electrostatic charge from at least the free end region of the coated fiber.

6. (Original) A method according to claim 1, comprising, before step (a), removing electrostatic charge from at least the free end region of the coated fiber.

7. (Original) A method according to claim 1, further comprising:

(h) cleaving the fiber within said medial length segment, thereby providing the fiber with a freshly cleaved end region, and

(i) coupling the freshly cleaved end region of the fiber to a test station.

8. (Original) A method according to claim 7, further comprising coupling the fiber to the face of the optical device at the test station, and testing the fiber using the optical device.

9. (Original) A method according to claim 7, wherein step (i) includes gripping the fiber upstream of said medial length segment using a clamp and advancing the clamp in the downstream direction and thereby advancing the freshly cleaved end region to the test station, and the method further comprises cutting the fiber upstream of the clamp, releasing the cut end segment of the fiber from the clamp and removing the cut end segment.

10. (Original) A method according to claim 7, wherein the coated optical fiber is a test fiber, the optical device is a buffer fiber connected to a test instrument, step (i) includes bringing the freshly cleaved end of the test fiber into alignment with an end region of the buffer fiber, and the method further comprises testing the test fiber using the test instrument.

11. (Original) A method according to claim 1, wherein step (c) comprises applying tension to the free end region of the fiber and thereby pulling the fiber through the stripping station, the cleaning station and the cleaving station.

12. (Original) A method according to claim 11, comprising gripping the free end region of the fiber and developing an electrical signal representative of tension in the fiber upstream of the location at which the fiber is gripped.

13. (Original) A method according to claim 11, wherein step (f) comprises continuing to pull the fiber until said medial length segment of fiber is at the cleaving station.

14. (Original) A method according to claim 1, further comprising:
(h) cleaving the fiber within said medial length segment, thereby providing the fiber with a freshly cleaved end region.

15. (Original) A method according to claim 14, comprising applying tension to the free end region of the fiber between steps (g) and (h), and wherein step (h) comprises cleaving the fiber while the free end region of the fiber is under tension.

16. (Original) Apparatus for preparing a coated optical fiber for coupling to a face of an optical device, said apparatus comprising:

a stripper at a stripping station,

a cleaner at a cleaning station,

a cleaver at a cleaving station,

at least one clamp for selectively gripping a free end region of a fiber that extends though the stripping station, the cleaning station and the cleaving station, and

a control means for controlling the apparatus to perform the following operations:

activate the clamp to grip the free end region of the fiber,

activate the stripper to engage the fiber,

move the clamp in a direction to apply tension to the fiber to pull the fiber through the stripping station and strip coating material from a medial length segment of the fiber,

activate the cleaning device and thereby clean fragments of coating material from said medial length segment of the fiber as said medial length segment passes through the cleaning station,

deactivate the cleaning device,

continue to move the clamp in said direction until said medial length segment of fiber is at the cleaving station,

apply tension to the medial length segment of the fiber,

while the medial length segment of the fiber is under tension, cleaving the fiber within said medial length segment, thereby providing the fiber with a freshly cleaved end region, and

move the clamp in said direction to advance the freshly cleaved end region of the fiber to a coupling station.

17. (Original) A stripper for stripping coating material from a an optical fiber, the stripper comprising:

first and second jaws, each jaw including a jaw body defining a recess and each jaw also including a blade mounted in the recess, and

a means for mounting the first and second jaws in a manner allowing relative movement of the jaws between a closed position, in which the recesses cooperate to form a chamber and the jaws are positioned for stripping a fiber extending through the chamber, and an open position, in which a fiber can be placed between the jaws or removed from between the jaws without engaging the blades,

and wherein at least one of the jaws includes a nozzle means opening into the recess for inducing a flow of gas in the chamber when the jaws are in the closed position, for removing particles of coating material from the fiber.

18. (Original) A method of preparing a length segment of optical fiber, comprising

employing a first gripping element to grip the length segment at a first location,

employing a second gripping element to grip the length segment at a second location, spaced from the first location,

urging the second gripping element away from the first gripping element, and

employing a strain gauge to generate a strain gauge signal that depends on tension in the fiber between the first and second gripping elements.

19. (Original) A method according to claim 18, further comprising controlling the urging of the second gripping element away from the first gripping element in dependence upon the strain gauge signal.

20. (Original) A method according to claim 18, further comprising cleaving the fiber between the first and second gripping elements when the strain gauge signal attains a predetermined value.

21. (Original) A method according to claim 18, comprising recording evolution of the strain gauge signal as a function of time.

22. (Original) Apparatus for preparing a length segment of optical fiber, comprising:

a first gripping element for gripping the length segment at a first location,

a second gripping element for gripping the length segment at a second location, spaced from the first location,

an actuator for urging the second gripping element away from the first gripping element, and

a strain gauge for generating a strain gauge signal that depends on tension in the fiber between the first and second gripping elements.

23. (Original) Apparatus according to claim 22, wherein the first gripping element is a fiber stripper and the second gripping element is a fiber clamp.

24. (Original) Apparatus according to claim 22, wherein the first and second gripping elements are respective fiber clamps.

25. (Original) Apparatus according to claim 22, further comprising a memory for recording the strain gauge signal.

26. (Original) Apparatus for preparing a length segment of fiber, comprising:

a fiber guide for guiding a loose end segment of fiber in a direction transverse of its length towards a gripping location, and

at least one gripping element at the gripping location for gripping the loose end segment.

27. (Original) Apparatus according to claim 26, wherein the gripping element includes a base and a pair of jaws mounted on the base and moveable with respect to the base between a gripping position and a releasing position, and wherein the fiber guide includes a wire member having two opposite ends fitted in respective bores formed in the base.

28. (Canceled)

29. (Original) Apparatus according to claim 26, wherein the gripping element includes two clamp jaws moveable towards each other for gripping the loose end segment therebetween and moveable apart from one another to release the loose end segment, and the apparatus includes an ejector for ejecting the loose end segment from the clamp jaws when the jaws move apart.

30. (Original) Apparatus according to claim 29, wherein the clamp jaws are mounted on a clamp base and moveable with respect thereto and the ejector includes two members projecting from the clamp base adjacent the jaws respectively.

31. (Original) Apparatus for cleaving a length segment of optical fiber, comprising:

a first clamp for gripping the length segment at a first location,

a second clamp for gripping the length segment at a second location, spaced from the first location,

an actuator for urging the second clamp away from the first clamp to tension the fiber segment between the first and second clamps,

a cleaving element,

a translation means for moving the cleaving element between a first location, in which it is spaced from the fiber segment, and a second location, in which it contacts a fiber segment held under tension between the first and second clamps, and

an acoustic means for vibrating the cleaving element and inducing a fracture in the fiber segment when the cleaving element is in the second location.

32. (Original) Apparatus for cleaving a length segment of optical fiber, comprising:

a first clamp for gripping the length segment at a first location,

a second clamp for gripping the length segment at a second location, spaced from the first location,

an actuator for urging the second clamp away from the first clamp to tension the fiber segment between the first and second clamps,

a strain gauge for generating a strain gauge signal that depends on tension in the fiber between the first and second gripping elements,

a cleaving element,

a translation means for moving the cleaving element between a first location, in which it is spaced from the fiber segment, and a second location, in which it contacts a fiber segment held under tension between the first and second clamps,

a control means responsive to the strain gauge signal for inhibiting the translation means from moving the cleaving element to the second location unless the strain gauge signal is in a selected magnitude range.

33. (Original) Apparatus for preparing a length segment of optical fiber, comprising:

an intake means for receiving the length segment,

a tool that acts on the length segment in preparing the length segment and, in so doing, creates fiber debris,

a debris container,

a duct leading from the vicinity of the tool to the debris container, and

a vacuum pump connected to the container for inducing a flow of air through the duct for carrying fiber debris into the container.

34. (Original) Apparatus according to claim 33, wherein the tool is a fiber stripper for removing coating material from the length segment.

35. (Original) Apparatus according to claim 33, wherein the tool is a fiber cleaver for severing a portion of the length segment from a remaining portion of the length segment.

36. (Original) Apparatus according to claim 33, comprising a valve for controlling flow of air through the duct.

37. (New) A method according to claim 1, wherein step (c) comprises effecting said relative motion under control of an electrical signal and step (g) comprises cleaving the fiber under control of an electrical signal.